

SEQUENCE LISTING

<110> Bristol-Myers Squibb Company

<120> POLYNUCLEOTIDE ENCODING A NOVEL HUMAN POTASSIUM CHANNEL BETA-SUBUNIT,
K+betaM2

<130> D0076 NP

<150> US 60/263,872

<151> 2001-01-24

<150> US 60/269,794

<151> 2001-02-14

<160> 73

<170> PatentIn version 3.0

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<211> 3468

<212> DNA

<213> Homo sapiens

<220>

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<222> (515)..(1798)

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aaaccaatac ggacatctga gtaactgggg aattggcctg ccttgcatgt gagcttgatg 240

gaagattgga tatagacgag ttgattatat tttatgaagt agcagctcac taccatccac 300

catccagggt ttaaactact ttttcagcat cacttcacct gtggactctt atacattttg 360

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tttccctttc ttacaagttg atccaaagga taaggctgtg actccattgg attgcacctt 480

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1 5

agt cgt tat tat cct cga gaa caa ggg tcc gca gtt ccc aac tcc ttc 583

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10 15 20

cct gag gtg gta gag ctg aat gtc ggg ggt caa gtt tat ttt act cgc 631

Pro Glu Val Val Glu Leu Asn Val Gly Gly Gln Val Tyr Phe Thr Arg
25 30 35

cat His 40	tcc Ser	aca Thr	ttg Leu	ata Ile	agc Ser 45	atc Ile	cct Pro	cat His	tcc Ser	ctc Leu 50	ctg Leu	tgg Trp	aaa Lys	atg Met	ttt Phe 55	679
tcc Ser	cca Pro	aag Lys	aga Arg	gac Asp 60	acg Thr	gct Ala	aat Asn	gat Asp	cta Leu 65	gcc Ala	aag Lys	gac Asp	tcc Ser	aag Lys 70	gga Gly	727
agg Arg	ttt Phe	ttc Phe	att Ile 75	gac Asp	aga Arg	gat Asp	gga Gly	ttc Phe 80	ttg Leu	ttc Phe	cgt Arg	tat Tyr	att Ile 85	ctg Leu	gac Asp	775
tat Tyr	ctc Leu	agg Arg 90	gac Asp	agg Arg	cag Gln	gtg Val	gtc Val 95	ctg Leu	cct Pro	gat Asp	cac His	ttt Phe 100	cca Pro	gaa Glu	aaa Lys	823
gga Gly	aga Arg 105	ctg Leu	aaa Lys	agg Arg	gaa Glu	gct Ala 110	gaa Glu	tac Tyr	ttc Phe	cag Gln	ctc Leu 115	cca Pro	gac Asp	ttg Leu	gtc Val	871
aaa Lys 120	ctc Leu	ctg Leu	acc Thr	ccc Pro	gat Asp 125	gaa Glu	atc Ile	aag Lys	caa Gln	agc Ser 130	cca Pro	gat Asp	gaa Glu	ttc Phe	tgc Cys 135	919
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ccc Pro	cct Pro	tcc Ser	tcc Ser 155	ctg Leu	ctc Leu	cct Pro	gcc Ala	gac Asp 160	cgc Arg	aag Lys	tgg Trp	ggg Gly	ttc Phe 165	att Ile	act Thr	1015
gtg Val	ggg Gly	tac Tyr 170	aga Arg	gga Gly	tcc Ser	tgc Cys	acc Thr 175	ttg Leu	ggc Gly	aga Arg	gag Glu	gga Gly	cag Gln	gca Ala	gat Asp	1063
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[illegible]

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<213> Homo sapiens

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20          25          30

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Gly Gln Val Tyr Phe Thr Arg His Ser Thr Leu Ile Ser Ile Pro His
35 40 45

Ser Leu Leu Trp Lys Met Phe Ser Pro Lys Arg Asp Thr Ala Asn Asp
50 55 60

Leu Ala Lys Asp Ser Lys Gly Arg Phe Phe Ile Asp Arg Asp Gly Phe
65 70 75 80

Leu Phe Arg Tyr Ile Leu Asp Tyr Leu Arg Asp Arg Gln Val Val Leu
85 90 95

Pro Asp His Phe Pro Glu Lys Gly Arg Leu Lys Arg Glu Ala Glu Tyr
100 105 110

Phe Gln Leu Pro Asp Leu Val Lys Leu Leu Thr Pro Asp Glu Ile Lys
115 120 125

Gln Ser Pro Asp Glu Phe Cys His Ser Asp Phe Glu Asp Ala Ser Gln
130 135 140

Gly Ser Asp Thr Arg Ile Cys Pro Pro Ser Ser Leu Leu Pro Ala Asp
145 150 155 160

Arg Lys Trp Gly Phe Ile Thr Val Gly Tyr Arg Gly Ser Cys Thr Leu
165 170 175

Gly Arg Glu Gly Gln Ala Asp Ala Lys Phe Arg Arg Val Pro Arg Ile
180 185 190

Leu Val Cys Gly Arg Ile Ser Leu Ala Lys Glu Val Phe Gly Glu Thr
195 200 205

Leu Asn Glu Ser Arg Asp Pro Asp Arg Ala Pro Glu Arg Tyr Thr Ser
210 215 220

Arg Phe Tyr Leu Lys Phe Lys His Leu Glu Arg Ala Phe Asp Met Leu
225 230 235 240

Ser Glu Cys Gly Phe His Met Val Ala Cys Asn Ser Ser Val Thr Ala
245 250 255

Ser Phe Ile Asn Gln Tyr Thr Asp Asp Lys Ile Trp Ser Ser Tyr Thr
260 265 270

Glu Tyr Val Phe Tyr Arg Glu Pro Ser Arg Trp Ser Pro Ser His Cys
275 280 285

Asp Cys Cys Cys Lys Asn Gly Lys Gly Asp Lys Glu Gly Glu Ser Gly
290 295 300

Thr Ser Cys Asn Asp Leu Ser Thr Ser Ser Cys Asp Ser Gln Ser Glu
305 310 315 320

Ala Ser Ser Pro Gln Glu Thr Val Ile Cys Gly Pro Val Thr Arg Gln
325 330 335

Thr Asn Ile Gln Thr Leu Asp Arg Pro Ile Lys Lys Gly Pro Val Gln
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Leu Ile Gln Gln Ser Glu Met Arg Arg Lys Ser Asp Leu Leu Arg Ile
355 360 365

Leu Thr Ser Gly Ser Arg Glu Ser Asn Met Ser Ser Lys Lys Lys Ala
370 375 380

Val Lys Glu Lys Leu Ser Ile Glu Glu Glu Leu Glu Lys Cys Ile Gln
385 390 395 400

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405 410 415

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caatggctct gagtggaaac tgtagtcggtt attatcctcg agaacaaggg tccgcagttc 180

ccaactcctt ccttgaggta gtagagctga atgtcggggg tcaagtttat ttactcgcc 240

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tcttggttccg ttatattctg gactatctca gggacaggca ggtggtcctg cctgatcact 420
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aactcctgac ccccgatgaa atcaagcaaa gcccagatga attctgccac agtgactttg 540
aagatgcctc ccaaggaagc gacacaagaa totgcccccc ttctccctg ctccctgccg 600
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gacaggcaga tgccaagttt cggagagtgc cccggatttt ggtttgtgga aggatttcct 720
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<213> Homo sapiens

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Tyr Pro Asp Ser Met Leu Gly Ala Met Phe Gly Gly Asp Phe Pro Thr
35          40          45
Ala Arg Asp Pro Gln Gly Asn Tyr Phe Ile Asp Arg Asp Gly Pro Leu
50          55          60
Phe Arg Tyr Val Leu Asn Phe Leu Arg Thr Ser Glu Leu Thr Leu Pro
65          70          75          80
Leu Asp Phe Lys Glu Phe Asp Leu Leu Arg Lys Glu Ala Asp Phe Tyr
85          90          95
Gln Ile Glu Pro Leu Ile Gln Cys Leu Asn Asp Pro Lys Pro Leu Tyr
100         105         110
Pro Met Asp Thr Phe Glu Glu Val Val Glu Leu Ser Ser Thr Arg Lys
115         120         125
Leu Ser Lys Tyr Ser Asn Pro Val Ala Val Ile Ile Thr Gln Leu Thr
130         135         140
Ile Thr Thr Lys Val His Ser Leu Leu Glu Gly Ile Ser Asn Tyr Phe
145         150         155         160

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Thr Lys Trp Asn Lys His Met Met Asp Thr Arg Asp Cys Gln Val Ser
165 170 175

Phe Thr Phe Gly Pro Cys Asp Tyr His Gln Glu Val Ser Leu Arg Val
180 185 190

His Leu Met Glu Tyr Ile Thr Lys Gln Gly Phe Thr Ile Arg Asn Thr
195 200 205

Arg Val His His Met Ser Glu Arg Ala Asn Glu Asn Thr Val Glu His
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Asn Trp Thr Phe Cys Arg Leu Ala Arg Lys Thr Asp Asp
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<213> Drosophila melanogaster

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35 40 45

Phe Leu Asp Arg Asp Gly Val Leu Phe Arg Tyr Ile Leu Asp Phe Leu
50 55 60

Arg Asp Lys Ala Leu His Leu Pro Glu Gly Phe Arg Glu Arg Gln Arg
65 70 75 80

Leu Leu Arg Glu Ala Glu His Phe Lys Leu Thr Ala Met Leu Glu Cys
85 90 95

Ile Arg Ser Glu Arg Asp Ala Arg Pro Pro Gly Cys Ile Thr Ile Gly
100 105 110

Tyr Arg Gly Ser Phe Gln Phe Gly Lys Asp Gly Leu Ala Asp Val Lys
115 120 125

Phe Arg Lys Leu Ser Arg Ile Leu Val Cys Gly Arg Val Ala Gln Cys
130 135 140

Arg Glu Val Phe Gly Asp Thr Leu Asn Glu Ser Arg Asp Pro Asp His
145 150 155 160

Gly Gly Thr Asp Arg Tyr Thr Ser Arg Phe Phe Leu Lys His Cys Tyr
165 170 175

Ile Glu Gln Ala Phe Asp Asn Leu His Asp His Gly Tyr Arg Met Ala
180 185 190

Gly Ser Cys Gly Ser Gly Thr Ala Gly Ser Ala Ala Glu Pro Lys Pro
195 200 205

Gly Val Asp Thr Glu Glu Asn Arg Trp Asn His Tyr Asn Glu Phe Val
210 215 220

Phe Ile Arg Asp
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<210> 6
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<212> PRT
<213> Caenorhabditis elegans

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20 25 30

Ala Asn Ile Ala Ser Gly Ser Leu Ser Glu Asp Glu Gln Ala Asn Val
35 40 45

Val Thr Leu Pro Asp Gly Thr Leu Phe Val Asp Arg Asp Gly Pro Leu
50 55 60

Phe Ala Tyr Val Leu His Phe Leu Arg Thr Asp Lys Leu Ser Leu Pro
65 70 75 80

Glu Gln Phe Arg Glu Val Ala Arg Leu Lys Asp Glu Ala Asp Phe Tyr
85 90 95

Arg Leu Glu Arg Phe Ser Thr Leu Leu Ser Asn Ala Ser Ser Ile Ser
100 105 110

Pro Arg Pro Arg Thr Ala Asn Gly Tyr Asn Thr Ile Thr Ser Gly Ala
115 120 125

Glu Thr Gly Gly Tyr Ile Thr Leu Gly Tyr Arg Gly Thr Phe Ala Phe
130 135 140

Gly Arg Asp Gly Gln Ala Asp Val Lys Phe Arg Lys Leu His Arg Ile
145 150 155 160

Leu Val Cys Gly Arg Ala Thr Leu Cys Arg Glu Val Phe Ala Asp Thr
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<210> 7
<211> 256
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His	Ile	Asp	Val	Gly	Gly	His	Met	Tyr	Thr	Ser	Ser	Leu	Ala	Thr	Leu	35	40	45	
Thr	Lys	Tyr	Pro	Glu	Ser	Arg	Ile	Gly	Arg	Leu	Phe	Asp	Gly	Thr	Glu	50	55	60	
Pro	Ile	Val	Leu	Asp	Ser	Leu	Lys	Gln	His	Tyr	Phe	Ile	Asp	Arg	Asp	65	70	75	80
Gly	Gln	Met	Phe	Arg	Tyr	Ile	Leu	Asn	Phe	Leu	Arg	Thr	Ser	Lys	Leu	85	90	95	
Leu	Ile	Pro	Asp	Asp	Phe	Lys	Asp	Tyr	Thr	Leu	Leu	Tyr	Glu	Glu	Ala	100	105	110	
Lys	Tyr	Phe	Gln	Leu	Gln	Pro	Met	Leu	Leu	Glu	Met	Glu	Arg	Trp	Lys	115	120	125	
Gln	Asp	Arg	Glu	Thr	Gly	Arg	Phe	Ser	Arg	Pro	Cys	Glu	Cys	Leu	Val	130	135	140	
Val	Arg	Val	Ala	Pro	Asp	Leu	Gly	Glu	Arg	Ile	Thr	Leu	Ser	Gly	Asp	145	150	155	160
Lys	Ser	Leu	Ile	Glu	Glu	Val	Phe	Pro	Glu	Ile	Gly	Asp	Val	Met	Cys	165	170	175	
Asn	Ser	Val	Asn	Ala	Gly	Trp	Asn	His	Asp	Ser	Thr	His	Val	Ile	Arg	180	185	190	
Phe	Pro	Leu	Asn	Gly	Tyr	Cys	His	Leu	Asn	Ser	Val	Gln	Val	Leu	Glu	195	200	205	
Arg	Leu	Gln	Gln	Arg	Gly	Phe	Glu	Ile	Val	Gly	Ser	Cys	Gly	Gly	Gly	210	215	220	
Val	Asp	Ser	Ser	Gln	Phe	Ser	Glu	Tyr	Val	Leu	Arg	Arg	Glu	Leu	Arg	225	230	235	240
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 <212> DNA
 <213> Homo sapiens

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<210> 10
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 <212> DNA
 <213> Homo sapiens

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 <211> 14
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 <400> 11

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 1 5 10

<210> 12
 <211> 14
 <212> PRT
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<400> 12

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 1 5 10

<210> 13
 <211> 14
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<400> 13

His Met Val Ala Cys Asn Ser Ser Val Thr Ala Ser Phe Ile
1 5 10

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<213> Homo sapiens

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Gly Ser Arg Glu Ser Asn Met Ser Ser Lys Lys Lys Ala Val
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<210> 15

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<212> PRT

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1 5 10

<210> 16

<211> 13

<212> PRT

<213> Homo sapiens

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1 5 10

<210> 17

<211> 13

<212> PRT

<213> Homo sapiens

<400> 17

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1 5 10

<210> 18

<211> 13

<212> PRT

<213> Homo sapiens

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1 5 10

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 35 40 45

Phe Phe Ile Asp Arg Asp Gly Phe Leu Phe Arg Tyr Ile Leu Asp Tyr
 50 55 60

Leu Arg Asp Arg Gln Val Leu Pro Asp His Phe Pro Glu Lys Gly
 65 70 75 80

Arg Leu Lys Arg Glu Ala Glu Tyr Phe Gln Leu Pro Asp Leu Val Lys
 85 90 95

Leu Leu Thr Pro Asp Glu Ile
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 1 5 10 15

Ile Asn Gln Tyr Thr
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<210> 25
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Phe Ser Gly Arg Met Glu Val Leu Thr Asp Ser Glu Gly Trp Ile Leu
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Ile Asp Arg Cys Gly Asn His Phe Gly Ile Ile Leu Asn Tyr Leu Arg
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Phe Asp Lys Leu Ser Leu Arg Phe Asn Glu Arg Ile Leu Phe Ile Lys
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Asp Val Ile Gly Pro Ser Glu Ile Cys Cys Trp Ser Phe Tyr Gly His
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Asp Arg Lys His Thr Lys Val Glu Phe Pro Glu Ala Arg Ile Tyr Glu
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